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- GRAY SCALE DOCUMENTS

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JUL 0 4 2004

PAGE 01

OFFICIAL

#### Dear Sir/Madam (Fax #703-872-9306):

RE: Patent Filing 09/916,701, "Method for Shifting the Bandgap Energy of A Quantum Well Layer"

I called the paralegal of your "Office for Petition Examiner" and spoke to Mr. Tom Hawkins (703-305-8380) and he advised me to Fax you our document with respect to the above matter. Please pass the enclosed Fax document (total 26 pages) along to them for review.

We have been awaiting the award of the above patent that had been allowed on March14, 2003. The patent office probably mistakenly abandoned the patent on ground that it did not receive our final set of drawings (See attached Document page 6) while we had actually sent them on time.

A petition to "withdraw holding of abandonment" was sent to the patent office to correct the error. This was sent by our patent lawyer Alan Limbach of Gray Cary on 9 September 03 (page 1 of enclosed Document) with the enclosure of a return postcard and document to show our timely mailing date of 22 July 03 (page 8 of enclosed Document). The letter showed our timely submittal and possible Patent Office error.

We have not heard from the Patent Office since and are eager to see the award of the patent. Please let me know if the patent will be awarded soon. In case there is any question, I can be contacted at 224-588-0958 (cell) or my assistant Dr. Jing Ma at 847-208-3918 at any time. In any case, I will call Tom Hawkins in a week to check with him. Thanks.

Best regards, Seng-Tiong Ho

120 Picardy Lane Wheeling, IL 60090 224-588-0958

3 July 04



## RECEIVED CENTRAL FAX CENTER

JUL 0 4 2004



Atty Dckt Number: 2103248-990140

-1-

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

BOON-SIEW OOI et al.

Application No. 09/916,701

Filed: July 26, 2001

For:

METHOD OF SHIFTING THE

BANDGAP ENERGY OF A QUANTUM

WELL LAYER

Commissioner for Patents PO Box 1450 Mail Stop: Issue Fee Alexandria, VA 22313-1450 Group Art Unit: 2812

**Examiner: SAVITRI MULPURI** 

PETITION TO WITHDRAW HOLDING OF ABANDONMENT

2000 University Avenue, East Palo Alto, CA 94303-2248 (650) 833-2000

#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to MS Issue Fee, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22213-1450, on September 9, 2003.

GRAY CARA WARE & FREIDHVRICH

Linda West

Date: 9/9/03

تلاعره

Sir:

Applicants hereby petition to withdraw the holding of abandonment in the present application, as evidenced in the Notice of Abandonment mailed September 2, 2003 (copy submitted herewith).

According to the Notice of Abandonment, the present application was abandoned due to Applicants' alleged failure to timely file new formal drawings as required in the Notice of Allowability, namely that no new formal drawings were received.

Applicants submit that new formal drawings were indeed timely submitted in the present case. Submitted herewith is a true and correct copy of Applicant's response to the Notice of Allowance, which included:

- 1. Transmittal Form
- 2. PTOL 85B Fee Transmittal





Atty Dckt Number: 2103248-990140

-2-

**PATENT** 

- 3. Fee Transmittal.
- 4. Submission of Formal Drawings transmittal.
- 5. 13 Sheets of Formal Drawings.
- 6. Check for \$950.
- 7. Certificate of First Class Mailing
- 8. Return Postcard.

Also submitted herewith is a true and correct copy of the stamped postcard receipt, which is prima facie evidence under MPEP 503 of receipt in the USPTO of all items listed thereon, including the 13 sheets of formal drawings.

Therefore, it is respectfully requested that the abandonment of the present application be withdrawn.

Respectfully submitted,

GRAY CARY WARE & FREIDENRICH

Dated: 547. 9 2003

By:

Alan A. Limbach Reg. No. 39,749

Attorneys for Applicant(s)

TELEPHONE: (650) 833-2433 (direct line)

TELECOPY: (650) 833-2001

Gray Cary\EM\7149888.i 2103248-990140





AAL



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER POR PATENTS P.O. BOX 1450 Alexandria, Vignes 22313-1450

| APPLICATION NO.       | PILING DATE       | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO.                      |
|-----------------------|-------------------|-------------------------|---------------------|---------------------------------------|
| 09/916,701 07/26/2001 |                   | Boon-Siew Ooi           | 021040-000800US     | 9267                                  |
| *****                 | 590 09/02/2003    |                         |                     | ·                                     |
| GRAY CARY             | / WARE & FREIDENI | RICH LLP                | EXAMI               | NEK                                   |
| 2000 UNIVER           | SITY AVENUE       |                         | MULPURI,            | SAVITRI                               |
| E. PALO ALT           | O, CA 94303-2248  | •                       |                     | · · · · · · · · · · · · · · · · · · · |
| •                     |                   |                         | ART UNIT            | PAPER NUMBER                          |
|                       |                   |                         | 2812                | PH-12                                 |
|                       |                   | DATE MAILED: 09/02/2003 | •                   |                                       |

Please find below and/or attached an Office communication concerning this application or proceeding.

## DOCKETED

**丹西拿巴林巴亞** 

SEP = 8 2003

GRAY CARY

Mall Stop Issue Fee Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Docket No. 2103248-990140

Mailed: September 1, U.S. Serial No. 09/916,701 Filed July 26, 2001

#### Enclosed are:

Transmittal Cover Sheet;

Petition to Withdraw Holding on Abandonment with Attachments; and

. 3) Return postcard.

, 2103248-990140 Phosistor Technologies

**AAL/Imw** 

Mail Stop Issue Fee Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Mailed: September 7, U.S. Serial No. 09/916,701 Filed July 26, 2001 2003

Docket No. 2103248-990140

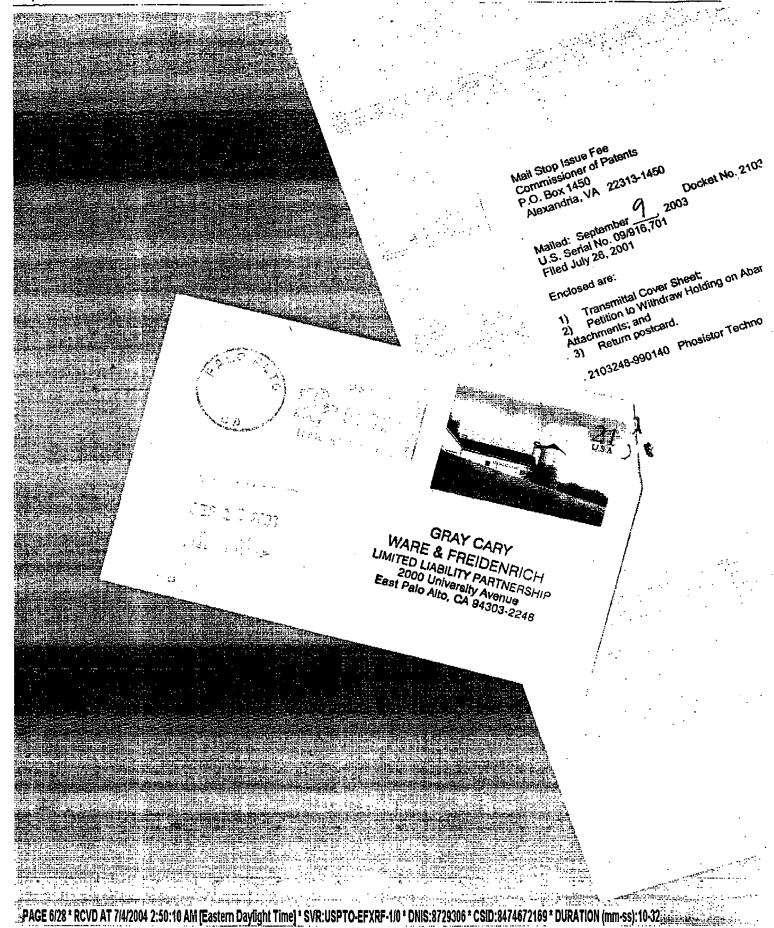
Enclosed are:

Transmittal Cover Sheet; Petition to Withdraw Holding on Abandonment Attachments; and

Return postcard.

. 2103248-990140 Phosistor Technologies

AAL/Imw





Application Number

PTO/SB/21 (08-00)

09/916,701

| TRANSMITTA  | XI                   | Filing Date   |              | July 26, 2001  |  |  |  |  |
|---|----------------------|---|--------------|--|--|--|--|--|
| FORM  | <b>-</b>             | First Named Inven   | tor          | Boon-Siew Ool et al.   |  |  |  |  |
| (to be used for all correspondence a  | fter initial filing) | Group Art Unit  |              | 2812   |  |  |  |  |
|   |                      | Examiner Name   |              | Savitri Mulpurl  |  |  |  |  |
| Total Number of Pages in This Subm  | ission               | Attorney Docket N   | lumber       | 2103248-990140   |  |  |  |  |
| ENCLOSURES (check all that apply)   |                      |   |              |  |  |  |  |  |
|   |                      | nment Papers  | ☐ Aft        | er Allowance Communication                                       |  |  |  |  |
| Fee Transmittal Form  | /for An              | Annlination)  |              | Coven<br>peal Communication to Board                             |  |  |  |  |
| Fee attached  | Drawi                | ing(5)  | of.          | Appeals and Interferences  |  |  |  |  |
| Amendment/Reply   |                      | sing-related Papers   | L AP         | peal Communication to Group<br>opeal Notice, Brief, Reply Brief) |  |  |  |  |
| After Final   | Appli                | оп to Convert to a Provisional cation                                       | D Pr         | oprietary information  |  |  |  |  |
| Affidavits/declaration(s)   |                      | er of Attorney, Revocation<br>age of Correspondence Address                 |              | atus Letter  |  |  |  |  |
| Extension of Time Request   | ☐ Term               | inat Disclaimer   | (pl          | her Enclosure(s)<br>ease identify below):                        |  |  |  |  |
| Express Abandonment Request   | Requ                 | est for Refund  |              | etition to Withdraw Holding of<br>pandonment                     |  |  |  |  |
| Information Disclosure Statement  | ☐ CD, I              | Number of CO(s)   |              |  |  |  |  |  |
|   | Remarks              | •   |              |  |  |  |  |  |
| Certified Copy of Priority Document(s)  |                      |   |              |  |  |  |  |  |
| Response to Missing Parts/<br>Incomplete Application  |                      |   |              |  |  |  |  |  |
| Response to Missing Parts under 37 CFR 1.52 or 1.53   |                      |   |              |  |  |  |  |  |
| ✗ Customer Number or Bar Code Label   |                      | 379<br>Inmer No. or Allach has conte label ber                              | وم           | ·  |  |  |  |  |
| The Commissioner is hereby author   | zed to charge an     | ry additional fees which may be req<br>A duplicate copy of this sheet is er | ulred, or o  | redit any overpayment to   |  |  |  |  |
| Deposit Account No.   | •                    | Respectfully submitted.   | IGNOCU       |  |  |  |  |  |
|   |                      | • •   |              |  |  |  |  |  |
|   |                      | GRAY CARY WARE & FREI   | DENRICH      | IIIP   |  |  |  |  |
| Dated: September 9, 2003  |                      | By: Alah.   | -<br>D       | ie   |  |  |  |  |
|   |                      | Attorney Name   | Atan A. Li   | mbach  |  |  |  |  |
|   |                      | Reg. No. 39,<br>Attorneys for Applica                                       |              |  |  |  |  |  |
|   |                      |   |              | ·  |  |  |  |  |
|   |                      | <u> </u>  |              |  |  |  |  |  |
|   | CERTIF               | ICATE OF MAILING  |              |  |  |  |  |  |
| I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class main an envelope addressed to: Commissioner of Patents and Trademarks, Box 1450, Alexandria, VA on this |                      |   |              |  |  |  |  |  |
| date: September / 2003  | larbor A             |   | <del> </del> |  |  |  |  |  |
| Typed or printed name Linda Murphy Signature  | R //                 | /1 ) 1 1 1 1  | ate          | Sentember 9 2002   |  |  |  |  |
| Gray Cary\EM\7149934.]  |                      | 1/0/0/  | 910          | September 9, 2003  |  |  |  |  |
| 2103248-990140  |                      | •   |              |  |  |  |  |  |

The reason(s) below:







# UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

CONTACT PERSON IS:

| Г   | APPLICATION NUMBER FILING D  | DATE FIRST NAMED APPLICANT   | т                    | ATTOR                          | NEY DOCKET NO.               |
|-----|--|--|----------------------|--------------------------------|------------------------------|
| ح . | 29/416,101   |  |                      |                                |                              |
|     |  |  |                      | <u>.</u>                       |                              |
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|     |  | ·  |                      |                                |                              |
|     | •  |  | <u> </u>             | ART UNIT                       | PAPER NUMBER                 |
|     |  |  |                      | •                              | •                            |
|     |  |  | DATE                 | MAILED:                        |                              |
|     |  | NOTICE OF ABANDONMENT  |                      |                                | •                            |
|     | n n h h h h h h h h  |  |                      |                                |                              |
| -   | oplication is abandoned in view of:  |  |                      | -                              |                              |
| -   | opticant's fallure to timely file a proper res   |  |                      |                                | <b>-</b>                     |
|     | A response (with a Certificate of Mailin   | ng or Transmission of<br>the expiration of the period for response                       | ) w<br>(Includir     | vas received<br>na a total ext | on<br>ension of              |
|     | time ofmonth(s)) which expired o   | •  | (                    |                                |                              |
|     | A proposed response was received on rejection.   | n, but it does not co  | institute            | a proper res                   | ponse to the final           |
|     | (A proper response to a final rejection condition for allowance; a Notice of Ap        | consists only of: a timely filed amendme<br>opeal; or the filing of a continuing applica | nt which             | n places the a<br>ler 37 CFR 1 | application in<br>.62 (FWC). |
| Ē   | No response has been received.   |  |                      |                                |                              |
|     | pplicant's failure to timely pay the require if the Notice of Allowance.               | d issue fee within the statutory period of   | three m              | onths from t                   | ne mailing date              |
| 0   | The issue fee (with a Certificate of Mai   | iling or Transmission of   | ) wa                 | s received or                  | n                            |
|     | The submitted issue fee of \$  | _is insufficient. The issue fee required b   | y 37 CF              | R 1.18 is \$_                  |                              |
| [   | The issue fee has not been received.   |  |                      |                                |                              |
| A   | pplicant's failure to timely file new formal   | drawings as required in the Notice of All  | lowabilit            | <b>y</b> .                     |                              |
| [   | Proposed new formal drawings (with a received on                                       | a Certificate of Mailing or Transmission of  | f <u>·          </u> |                                | ) were                       |
| [   | ☐ The proposed new formal drawings file  | edare not accep  | ptable.              |                                |                              |
| ļ   | 2 No proposed new formal drawings hav  | ve been received.  |                      |                                |                              |
|     | the express abandonment under 37 CFR   | 1.62(g) in favor of the FWC application  | filed on             |                                |                              |
|     | The letter of express abandonment which interest, or all of the applicants.            | n is signed by the attorney or agent of rec  | ord, the             | assignee of                    | the entire                   |
|     | The letter of express abandonment which<br>37 CFR 1.34(a) upon the filing of a contin  |  | g in a re            | presentative                   | capacity under               |
|     | The decision by the Board of Patent Appe<br>or seeking court review of the decision ha |  | ms.                  | and b                          | ecause the period            |





### Respond to the Notice of Abandonment by one of the following:

Petition To Withdraw Holding of Abandonment (See MPEP 711.03(c) I) and 37 CFR § 1.181) No fee required

Where an applicant contends that the application is not in fact abandoned (e.g., there is disagreement as to the sufficiency of the reply, or as to controlling dates), a petition under 37 CFR § 1.181(a) requesting withdrawal of the holding of abandonment is the appropriate course of action. Any petition under 37 CFR § 1.181, to withdraw the holding of abandonment not filed within 2 months of the mail date of a Notice of Abandonment may be dismissed as untimely under 37 CFR § 1.181(f). In order for a petition to be granted, the evidence must be sufficient according to one of the following standards:

- 37 CFR § 1.8(b) Certificate of Mailing
- 37 CFR § 1.10 "Express Mail" mailing
- MPEP 503 Postcard Receipt as Prima Facie Evidence

Petition To Withdraw Holding Of Abandonment should be addressed as follows:

By mail:

Commissioner For Patents, P.O. Box 1450, Mail Stop: Issue Fee, Alexandria, VA

22313-1450

By facsimile:

703-305-8755 or 703-305-4372

## Petition To Withdraw Holding Of Abandonment Based On Failure To Receive Office Action (See MPEP 711.03(c) II). No fee required

Where an applicant contends that the original Notice of Allowance and Issue Fee Due was never received. If adequately supported, the Office may grant the petition and remail the Office action. The showing required establishing non-receipt of an Office communication must include a statement from the practitioner stating that the Office communication was not received and attesting to the fact that a search of the file jacket and docket records indicates that the Office communication was not received. A copy of the docket record where the nonreceived Office would have been emered had it been received and docketed must be attached to and referenced in practitioner's statement.

Petition should be addressed to the Technology Center handling the application as follows:

By mail:

Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450

(Mark attention of a particular office or individual)

By facsimile:

Technology Center numbers posted at http://www.uspto.gov/september1/faxnotice.htm

### Petition To Revive An Abandoned Application (See MPEP 711.03(c) III)

Where there is no dispute as to whether an application is abandoned (e.g. the applicant's contentions merely involve the cause of abandonment) a petition under 37 CFR § 1.137 (a) unavoidable or (b) unintentionally (accompanied by the appropriate petition fee) is necessary to revive the abandoned application.

Petitions under 37 CFR § 1.137 should be addressed to the Office of Petitions as follows:

By mail:

Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450

By hand;

Crystal Plaza 4, Rm. 3C23, 2201 Clark Place, Arlington, VA

By facsimile:

703-308-6916

Petition For Revival Of An Application For Patent Abandoned Unavoidably Under 37 CFR § 1.137(a) and Unintentionally Under 37 CFR 1.137(b), forms available at USPTO website – http://www.uspto.gov

Note: Abandonment takes place by operation of law for failure to reply to an Office action or timely pay the issue fee, not by operation of the mailing of a Notice of Abandonment.

Mail Stop: Issue Fee Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Mailing Date: July 22, 2003 U.S. Serial No.: 09/916,701 Filing Date: July 26, 2001

METHOD FOR SHIFTING THE BANDGAP ENERGY OF A

QUANTUM WELL LAYER

#### Enclosed are:

- 1) Transmittal Form (in duplicate);
- PTOL 85B Fee Transmittal (in duplicate);
   Fee Transmittal FY 2003 (in duplicate);
- 4) Submission of Formal Drawings Transmittal (in duplicate);
- 5) 13 Shoets of Formal Drawings;
- 5) Check in the amount of \$ 950.00;
- 6) Certificate of First Class Mailing; and
- 7) Return Postcard.

2103248-990140 (Phosistor)

22260/AAL/kI

Mail Stop: Issue Fee Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Mailing Date: July 22, 2003 U.S. Serial No.: 09/916,701 Filing Date: July 26, 2001 Title:

METHOD FOR SHEFTING THE BANDGAP ENERGY OF A QUANTUM WELL LAYER

#### Enclosed are:

- 1) Transmittel Form (in duplicate);
- 2) PTOL 85B Fee Transmittal (in duplicate);
  3) Fee Transmittal FY 2003 (in duplicate);
- 4) Submission of Formal Drawings Transmittal (in dup 5) 13 Sheets of Forms | Drawings;
- 5) Check in the amount of \$ 950.00:
- 6) Certificate of First Class Mailing; and
- 7) Return Postcard.

2103248-990140 (Phosistor)



22260/AAL/ki





PTO/SB/05 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 09/916,701 Application Number July 26, 2001 TRANSMITTAL Filing Date Boon Siew Ooi **FORM** First Named Inventor 2812 Art Unit (to be used for all correspondence after initial filing) Savitri Mulpuri Examiner 2103248-990140 21 Attorney Docket Number Total Number of Pages In This Submission ENCLOSURES (Check all that apply) After Allowance Communication to Group M Drawing(s) Formal - 13 sheets M Fee Transmittal Form (in duplicate Appeal Communication to Board of Appeals and Interferences Licensing-related Papers Fee Attached -\$950.00 Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Petition Amendment/Reply Proprietary Information Petition to Convert to a After Final Provisional Application Status Letter Power of Attorney, Revocation Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Terminal Disclaimer **Extension of Time Request** Identify below): PTOL-85 Part B (in duplicate) Request for Refund Express Abandonment Request Letter to Draftsperson (in duplicate) Return Postcard CD, Number of CD(s) Information Disclosure Statement Remarks Certified Copy of Priority The Commissioner is hereby authorized to charge any additional fees which may Document(s) be required, or credit any overpayment to Deposit Account No. 07-1896. A duplicate copy of this sheet is enclosed. Response to Missing Parts/ Incomplete Application Customer Number 26379 Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Alan A. Limbach, Reg. No. 39,749 Gray Cary Ware & Freidenrich LLP Individual Signature July 22, 2003 Date CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimilie transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. Kathleen LaBrie Typed or printed July 22, 2003 Date Signature

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gettering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Office, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alaxandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need essistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/05 (05-03) A Did for use through 04/30/2003. OMB 0651-0032
U.S. Patent and Ti A Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMS control number.

|                                       |                               | ·   c                | Complete if Known |          |  |  |  |
|---------------------------------------|-------------------------------|----------------------|-------------------|----------|--|--|--|
| FEE TRANS                             | SMITTAL                       | Application Number   | 09/916,701        | <u></u>  |  |  |  |
|                                       |                               | Filing Date          | July 26, 2001     |          |  |  |  |
| for FY 2                              |                               | First Named Inventor | Boon siew Ooi     |          |  |  |  |
| Effective 01/01/2003. Patent fees at  | e subject to annual revision. | Examiner Name        | Savitri Mulpuri   |          |  |  |  |
| Applicant claims small entity status. | See 37 CFR 1.27               | Art Unit             | 2812              | <u> </u> |  |  |  |
| TOTAL AMOUNT OF PAYMENT (5) 950.00    |                               | Attorney Docket No.  | 2103248-990140    |          |  |  |  |

| METHOD OF P  | FEE CALCULATION (continued)   |              |                    |              |                      |   |                   |               |          |
|--|---|--------------|--------------------|--------------|----------------------|---|-------------------|---------------|----------|
| METHOD OF PAYMENT (check all that apply)  Check Credit card Money Other None |   |              | DITIO              | NAL          | FEES                 |   |                   |               |          |
| Check Credito  | Large E   | ntity .      | Small              | Entity       | <b>:</b>             |   |                   |               |          |
| Deposit Account:   |   | Fee          | Fee                | Fee          | Fee                  | Fee Descri  | otion             |               |          |
| Deposit<br>Account 07-1896   |   | Code         | (\$)               | Code         | <b>(\$)</b>          |   |                   | •             | Fee Pald |
| Account U7-1890  |   | 1051         | 130                | 2051         | 65                   | Surcharge - late filing fee                               | OL CSILI          |               |          |
| Deposit<br>Account Gray Ca   | nry Ware & Freidenrich LLP  | 1052         | 50                 | 2052         | 25                   | Surcharge - tate provision<br>cover sheet                 | nal filing        | fee or        |          |
| Name Lauthorized   | to: (check all that sooly)  | 1053         | 130                | 1053         | 130                  | Non-English specification                                 | •                 |               |          |
| Charge fee(s) indicated  |   | 1812         | 2,520              | 1812         | 2,520                | For filing a request for ex                               | perle re          | examination   |          |
| = ' ''   | se(s) during the pendency of this application                                     | 1804         | 920*               | 1804         | 920°                 | Requesting publication of<br>Examiner action              | of SIR pr         | ior to        |          |
| Charge fee(s) indicated  | below, except for the filing fee  | 1805         | 1,840*             | 1805         | 1,840                | Requesting publication                                    | of SIR of         | iter          | L        |
| to the above-identified depo   | osit account.   | 1251         | 110                | 2251         | 55                   | Examiner action —<br>Extension for reply within           | n first me        | onth          |          |
| FE   | E CALCULATION   | 1            |                    |              |                      | Extension for reply within                                |                   |               |          |
| 1. BASIC FILING FE   | E   | 1252         | <b>410</b>         | 2252         |                      |   |                   | (             | -        |
| Large Entity Small Entit   |   | 1253         | 930                | 2253         | 465                  | Extension for reply with                                  | n third m         | ionti         |          |
| Fee Fee Fee Fee  | <u>Fee Description</u> Fee Paid   | 1254         | 1,450              | 2254         | 725                  | Extension for reply within                                | n fourth          | month         |          |
| Code (\$)   Code (\$)<br>1001 750   2001 375                                 | Utility filing fee  | 1255         | 1,970              | 2255         | 985                  | Extension for reply within                                | n <b>lifth</b> me | onth          |          |
| 1002 330 2002 165  | Design filing fee   | 1401         | 320                | 2401         | 160                  | Notice of Appeal  |                   |               |          |
| 1003 520 2003 260  | Plant filing fee  | 1402         | 320                | 2402         | 160                  | Filing a brief in support                                 | of an ap          | peal          | j.       |
| 1004 750 2004 375  | Reissue filing fee  | 1403         | 280                | 2403         | 140                  | Request for oral hearing                                  | -                 | •             |          |
| 1005 160 2005 80   | Provisional filing fee  |              |                    | 1            |                      | ·   | _                 |               |          |
| 1  | SUBTOTAL(1) (\$) 0.00   | 1451         | 1,510              | 1            | 1,510                | _   |                   | Droccerre A   |          |
|  |   | 1452         |                    | 2452         |                      | Petition to revive - unav                                 |                   |               |          |
| 2. EXTRA CLAIM FI  | EES FOR UTILITY AND REISSUE   |              | 1,300              | 2453<br>2501 | 650<br>650           | Petition to revive - uning<br>Utility issue fee (or reist |                   | ł             |          |
|  | Extra Claims below Fee Paid   | 1502         | 1,300<br>470       |              | 235                  | Design issue fee  |                   |               | 650.00   |
| Total Claims   | -20** = X =   | 1503         |                    | 2503         |                      | Plant issue fee   |                   |               |          |
| independent<br>Claims  | -3** = X  | 1480         |                    | 1460         |                      |   | ssioner'          | •             |          |
| Multiple Dependent   | =   | 1807         | 50                 | 1807         | 50                   | Processing fee under 3                                    | 7 CER 1           | 17(6)         |          |
| Large Entity   Small E   | ntity<br>Fee Fee Description  | 1            |                    | 1            |                      | •   |                   | • •           |          |
| Code (\$) Code   |   | 1808<br>8021 |                    | 1806<br>8021 |                      |   |                   |               | <b>—</b> |
| 1202 18 2202   | 9 Claims in excess of 20  | 1809         |                    | 2809         |                      | property (times numbés<br>Filing a submission and         | gong to           | erties)       |          |
| 1  | 42 Independent claims in excess of 3<br>140 Multiple dependent claim, if not paid | 1810         | 750                | 2810         | 375                  |   |                   | be            |          |
| 1204 84 2204   | 42 Release Independent claims<br>over original patent                             | 1801         |                    | 280          | 375                  | examined (37 CFR 1.1) Request for Continued               |                   | ation (RCE)   |          |
| 1205 18 2205   | g "* Reissue claims in excess of 20   | 1802         |                    | 1802         | 900                  | Request for expedited                                     | examina           | nion          |          |
| 1200 10 2205   | and over original patent  | 1            |                    | ı            |                      | of a design application                                   |                   |               |          |
|  | Othe  | r fee (\$    | pecify)            | Publi        | cation. Fee (\$300)) |   | ·                 | 300.00        |          |
| **or number previously   | y paid, if greater; For Reissues, see above                                       | *Rec         | luced b            | y Basic      | Filing               | Fee Paid SUBT   | OTAL              | (3) (\$)      | 950.00   |
| SUBMITTED BY   | •   |              |                    |              |                      | , (Cor  | nplete (/         | f applicable) |          |
| Name (Print/Type)  | Alan A. Limbach   |              | Regist/<br>(Attorn |              |                      | 9,749 Tele  | phone             | 650-833-2     | 433      |
| Signature  | Date July 22, 2003  |              |                    | 03           |                      |   |                   |               |          |

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PAGE 12/28 \* RCVD AT 7/4/2004 2:50:10 AM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-1/0 \* DNIS:8729306 \* CSID:8474672169 \* DURATION (mm-Ss);10-32\*Count-forms.com





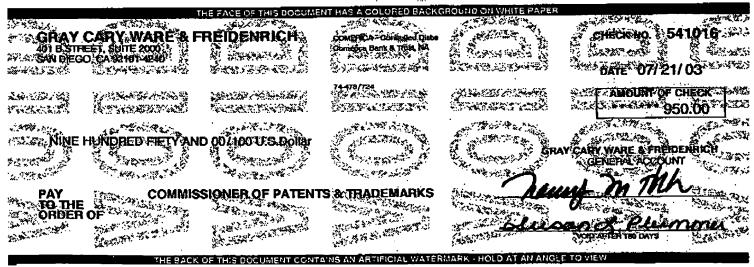
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Kathleen LaBrie athlein hattink

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|--|--|--|--|---|---------------------------------------|--|--|
| APPLICATION NO.  | FILING DATE  | FIRS   | NAMED INVENTOR   | ATTORNEY DOCKET NO.   | CONFIRMATION NO.                      |  |  |
| 09/916,701   | 07/26/2001   |  | Boon-Siew Oci  | 021040-000800US   | 9267                                  |  |  |
| ITLE OF INVENTION: M   | LETHOD FOR SHIFTING  | THE BANDGAP ENER   | GY OF A QUANTUM WELL L   | AYER<br>·_  |                                       |  |  |
| APPLN. TYPE  | SMALL ENTITY   | ISSUE FEE  | PUBLICATION FEE  | TOTAL FEE(S) DUE  | DATE DUE                              |  |  |
| nonprovisional   | YES  | \$1300   | \$300  | \$1600  | 07/22/2003                            |  |  |
| EXAMI  | NER  | ART UNIT   | CLASS-SUBCLASS   |   |                                       |  |  |
| MULPURI,   | SAVITRI  | 2812   | 438-022000   |   |                                       |  |  |
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Applicants: Boon-Siew Ooi

Group Art Unit: 2812

Serial No.: 09/916,701

Examiner: Savitri Mulpuri

Filed: July 26, 2001

Gray Cary Ware & Freidenrich LLP

Attorney Docket No. 2103248-990140

15

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2000 University Avenue

East Palo Alto, CA 94303-2248

Title: METHOD FOR SHIFTING THE BANDGAP ENERGY OF A QUANTUM WELL LAYER

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Applicant hereby submits thirteen (13) sheets of formal drawings in the above-identified patent application.

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GRAY CARY WARE & FREIDENRICH LLP

Dated July 22, 2003

Alan A. Limbach

Customer Number

Reg. No. 39,749

26379

Attorney for Applicant(s)

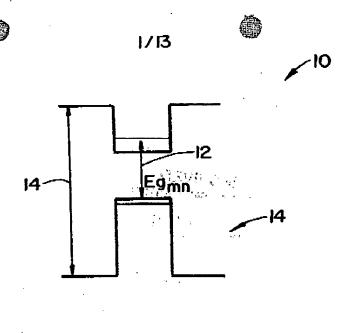


FIG. IA.

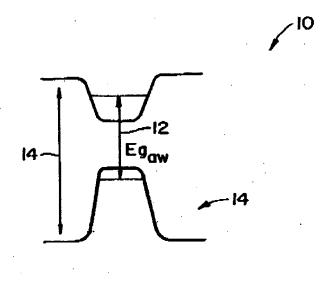


FIG. IB.



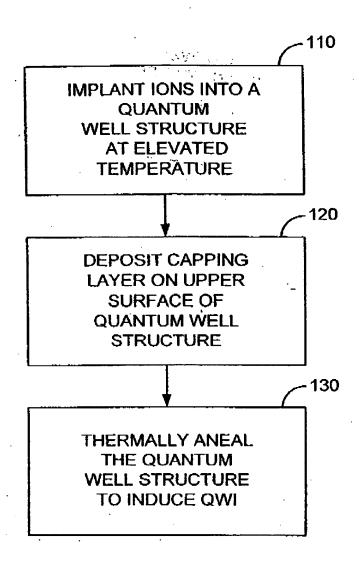


FIG. 2.





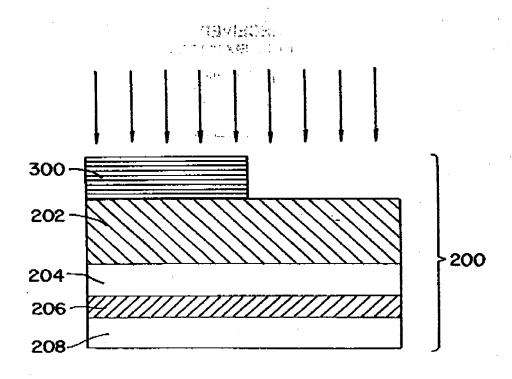


FIG. 3.

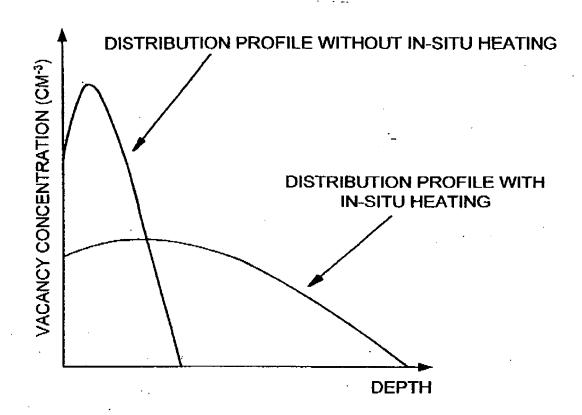


FIG. 4.

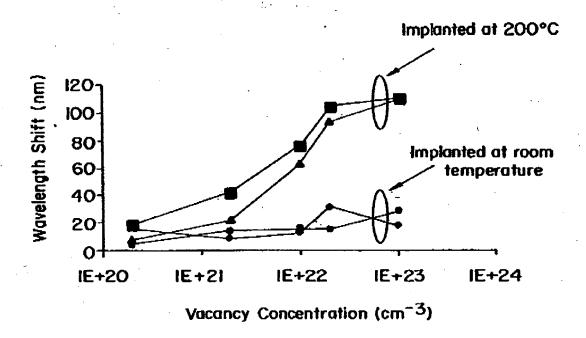


FIG. 5.

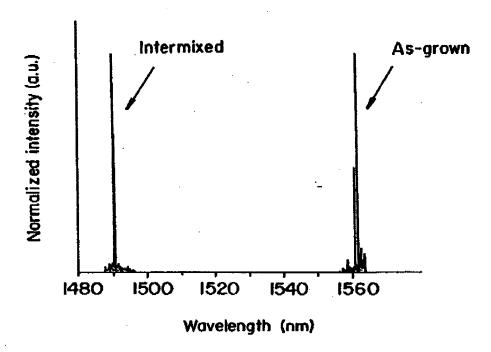


FIG. 6.



Reciprocal Cavity Length (cm<sup>-1</sup>)

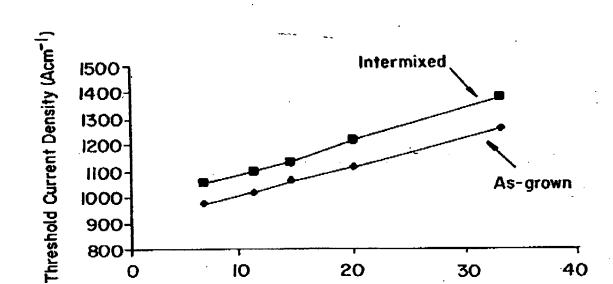


FIG. 7.

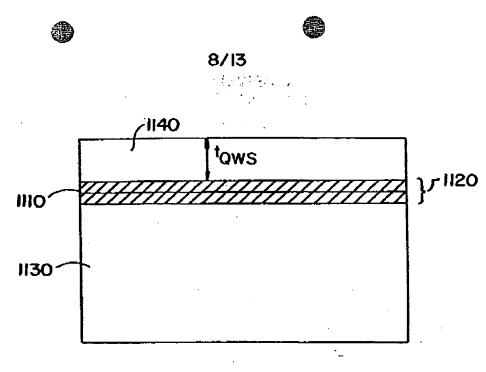


FIG. 8A.

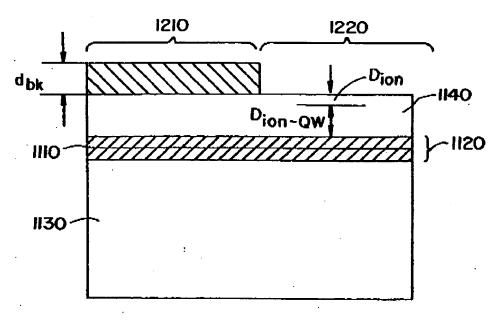
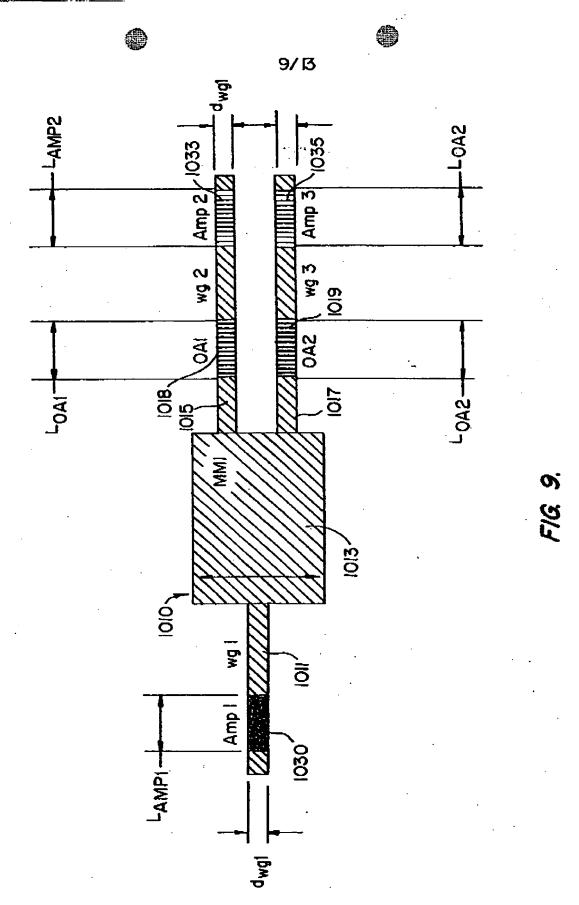


FIG. 8B.



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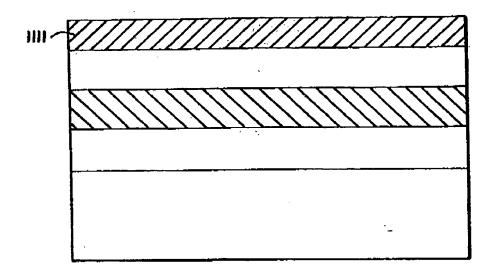


FIG. IOA.

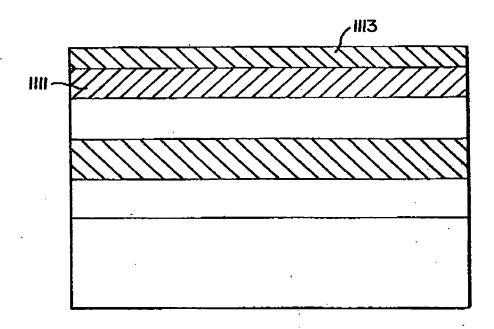


FIG. IOB.





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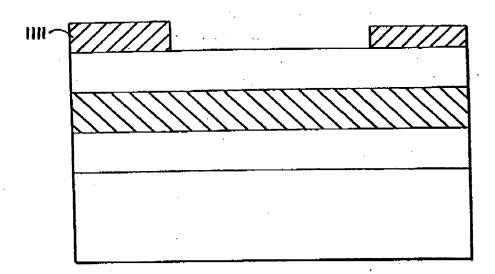


FIG. 10C.

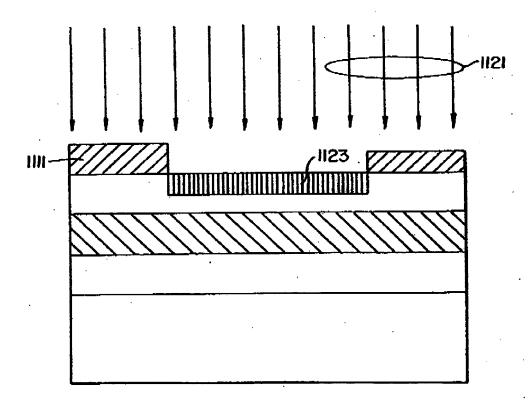


FIG. IOD.





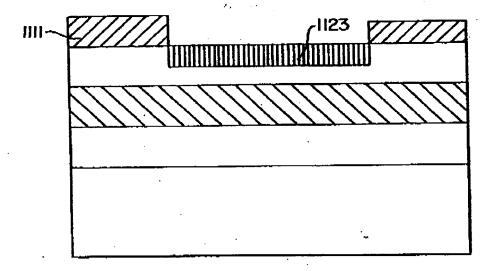


FIG. IOE.

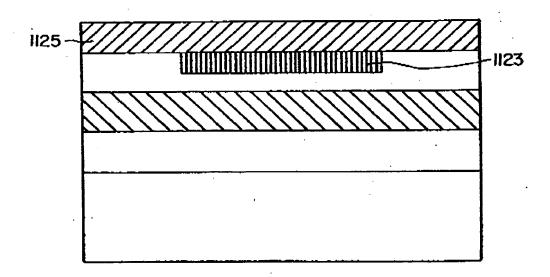


FIG. IOF.





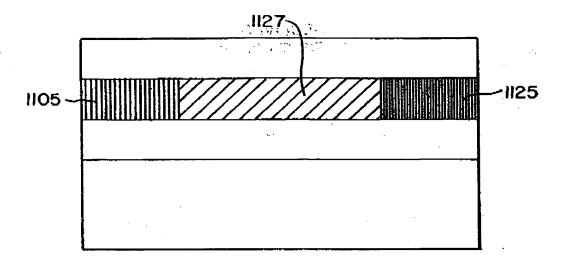


FIG IOG

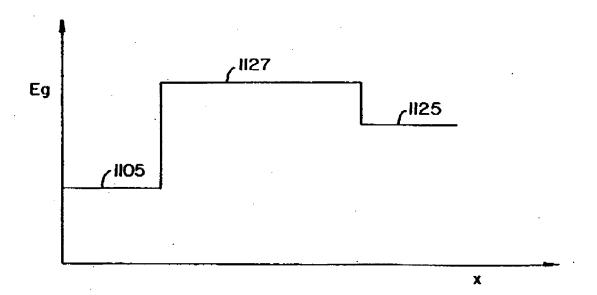


FIG. IOH.